

10051735\_CLSTITLES

Titles of Most Frequently Occurring Classifications of Patents Returned

From A Search of 10051735 on March 02, 2004

|    |         |  |
|----|---------|--|
| 24 | 381/412 | (6 OR, 18 XR)  |
|    | Class   | 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES |
|    | 381/150 | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                            |
|    | 381/396 | .Electromagnetic (e.g., dynamic)                             |
|    | 381/412 | ..Magnetic circuit   |
| 22 | 381/401 | (6 OR, 16 XR)  |
|    | Class   | 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES |
|    | 381/150 | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                            |
|    | 381/396 | .Electromagnetic (e.g., dynamic)                             |
|    | 381/400 | ..Movable voice coil   |
|    | 381/401 | ...Multiple voice coils                                      |
| 19 | 381/396 | (7 OR, 12 XR)  |
|    | Class   | 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES |
|    | 381/150 | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                            |
|    | 381/396 | .Electromagnetic (e.g., dynamic)                             |
| 19 | 381/431 | (2 OR, 17 XR)  |
|    | Class   | 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES |
|    | 381/150 | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                            |
|    | 381/396 | .Electromagnetic (e.g., dynamic)                             |
|    | 381/423 | ..Specified diaphragm shape or structure                     |
|    | 381/431 | ...Flat  |
| 17 | 381/96  | (11 OR, 6 XR)  |
|    | Class   | 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES |
|    | 381/96  | LOUDSPEAKER FEEDBACK   |
| 16 | 381/400 | (2 OR, 14 XR)  |
|    | Class   | 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES |
|    | 381/150 | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                            |
|    | 381/396 | .Electromagnetic (e.g., dynamic)                             |
|    | 381/400 | ..Movable voice coil   |
| 14 | 381/186 | (4 OR, 10 XR)  |
|    | Class   | 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS             |

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AND DEVICES

381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/182 .Plural or compound reproducers  
381/186 ..Plural diaphragms

13 381/398 (5 OR, 8 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/396 .Electromagnetic (e.g., dynamic)  
381/398 ..Having diaphragm support feature

13 381/423 (4 OR, 9 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/396 .Electromagnetic (e.g., dynamic)  
381/423 ..Specified diaphragm shape or structure

12 381/407 (3 OR, 9 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/396 .Electromagnetic (e.g., dynamic)  
381/400 ..Movable voice coil  
381/407 ...Particular bobbin structure

11 181/171 (1 OR, 10 XR)  
Class 181 : ACOUSTICS  
181/157 DIAPHRAGM  
181/171 .Mounting or suspension means

10 84/726 (10 OR, 0 XR)  
Class 084 : MUSIC  
84/1 INSTRUMENTS  
84/600 .Electrical musical tone generation  
84/723 ..Transducers  
84/725 ...Electromagnetic  
84/726 ....String

10 381/182 (3 OR, 7 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/182 .Plural or compound reproducers

9 381/408 (5 OR, 4 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS

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AND DEVICES

|             |  |
|-------------|--|
| 381/150     | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                                  |
| 381/396     | .Electromagnetic (e.g., dyynamic)                                  |
| 381/400     | ..Movable voice coil   |
| 381/408     | ...Pattern   |
|             |  |
| 7 381/117   | (2 OR, 5 XR)   |
| Class 381 : | ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS<br>AND DEVICES          |
| 381/111     | CIRCUITRY COMBINED WITH SPECIFIC TYPE<br>MICROPHONE OR LOUDSPEAKER |
| 381/117     | .With magnetic loudspeaker   |
|             |  |
| 7 381/386   | (1 OR, 6 XR)   |
| Class 381 : | ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS<br>AND DEVICES          |
| 381/150     | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                                  |
| 381/386     | .Mounting or support feature of housed<br>loudspeaker              |
|             |  |
| 7 381/403   | (3 OR, 4 XR)   |
| Class 381 : | ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS<br>AND DEVICES          |
| 381/150     | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                                  |
| 381/396     | .Electromagnetic (e.g., dyynamic)                                  |
| 381/400     | ..Movable voice coil   |
| 381/403     | ...Centering from outside bobbin or diaphragm                      |
|             |  |
| 7 381/409   | (3 OR, 4 XR)   |
| Class 381 : | ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS<br>AND DEVICES          |
| 381/150     | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                                  |
| 381/396     | .Electromagnetic (e.g., dyynamic)                                  |
| 381/400     | ..Movable voice coil   |
| 381/409     | ...Wiring structure  |
|             |  |
| 7 381/410   | (1 OR, 6 XR)   |
| Class 381 : | ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS<br>AND DEVICES          |
| 381/150     | ELECTRO-ACOUSTIC AUDIO TRANSDUCER                                  |
| 381/396     | .Electromagnetic (e.g., dyynamic)                                  |
| 381/400     | ..Movable voice coil   |
| 381/410     | ...Coil coating, winding layer structure, or<br>wire               |
|             |  |
| 7 381/414   | (6 OR, 1 XR)   |
| Class 381 : | ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS                         |

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AND DEVICES

381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/396 .Electromagnetic (e.g., dyynamic)  
381/412 ..Magnetic circuit  
381/414 ...Flux modifying means

7 381/420 (2 OR, 5 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/396 .Electromagnetic (e.g., dyynamic)  
381/412 ..Magnetic circuit  
381/420 ...Having central magnetic portion

7 381/424 (3 OR, 4 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/396 .Electromagnetic (e.g., dyynamic)  
381/423 ..Specified diaphragm shape or structure  
381/424 ...Plural portions or sections

7 381/430 (4 OR, 3 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/396 .Electromagnetic (e.g., dyynamic)  
381/423 ..Specified diaphragm shape or structure  
381/430 ...Dome or round

7 600/25 (6 OR, 1 XR)  
Class 600 : SURGERY  
600/25 SURGICALLY IMPLANTED VIBRATORY HEARING AID

6 181/144 (1 OR, 5 XR)  
Class 181 : ACOUSTICS  
181/144 PLURAL DIAPHRAGM SOUND SOURCES

6 181/166 (1 OR, 5 XR)  
Class 181 : ACOUSTICS  
181/157 DIAPHRAGM  
181/166 .With damping means

6 181/199 (0 OR, 6 XR)  
Class 181 : ACOUSTICS  
181/175 SOUND-MODIFYING MEANS  
181/198 .Housing or enclosure (e.g., sound confining  
and absorbing)

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- 181/199            ..Speaker type
- 6   340/407.1        (3 OR, 3 XR)  
      Class    340 :   COMMUNICATIONS:   ELECTRICAL  
      340/407.1       TACTUAL INDICATION
- 6   381/152           (3 OR, 3 XR)  
      Class    381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                  AND DEVICES  
      381/150        ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
      381/152        .Driven diverse static structure (e.g., wall,  
                          sounding board)
- 6   381/402           (3 OR, 3 XR)  
      Class    381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                  AND DEVICES  
      381/150        ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
      381/396        .Electromagnetic (e.g., dynamic)  
      381/400        ..Movable voice coil  
      381/401        ...Multiple voice coils  
      381/402        ....For different frequencies
- 6   381/79            (1 OR, 5 XR)  
      Class    381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                  AND DEVICES  
      381/77        ONE-WAY AUDIO SIGNAL PROGRAM DISTRIBUTION  
      381/79        .Near field
- 5   29/594            (0 OR, 5 XR)  
      Class    029 :   METAL WORKING  
      29/592        METHOD OF MECHANICAL MANUFACTURE  
      29/592.1       .Electrical device making  
      29/594        ..Acoustic transducer
- 5   181/167           (1 OR, 4 XR)  
      Class    181 :   ACOUSTICS  
      181/157       DIAPHRAGM  
      181/167       .Critically defined material or coating
- 5   181/170           (1 OR, 4 XR)  
      Class    181 :   ACOUSTICS  
      181/157       DIAPHRAGM  
      181/167       .Critically defined material or coating  
      181/170       ..Laminated type
- 5   381/312           (0 OR, 5 XR)  
      Class    381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                  AND DEVICES

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HEARING AIDS, ELECTRICAL

- 381/312
- 5 381/335 (1 OR, 4 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/87 HAVING NON-ELECTRICAL FEATURE (E.G., MOUNTING)  
381/332 .And loudspeaker  
381/335 ..Plural diaphragms, compartments, or housings
- 5 381/345 (4 OR, 1 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/337 .Having acoustic wave modifying structure  
381/345 ..Acoustic enclosure
- 5 381/405 (2 OR, 3 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/396 .Electromagnetic (e.g., dynamic)  
381/400 ..Movable voice coil  
381/405 ...Centering from within bobbin or diaphragm
- 5 455/41.1 (2 OR, 3 XR)  
Class 455 : TELECOMMUNICATIONS  
455/39 TRANSMITTER AND RECEIVER AT SEPARATE STATIONS  
455/41.1 .Near field (i.e., inductive or capacitive  
coupling)
- 4 181/153 (1 OR, 3 XR)  
Class 181 : ACOUSTICS  
181/148 DIAPHRAGM AND ENCLOSURE  
181/153 .Rounded enclosure (e.g., curved, etc.)
- 4 181/172 (1 OR, 3 XR)  
Class 181 : ACOUSTICS  
181/157 DIAPHRAGM  
181/171 .Mounting or suspension means  
181/172 ..Elastic suspension means
- 4 181/173 (0 OR, 4 XR)  
Class 181 : ACOUSTICS  
181/157 DIAPHRAGM  
181/173 .Particular shape

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- 4 324/318 (1 OR, 3 XR)  
     Class 324 : ELECTRICITY: MEASURING AND TESTING  
     324/300 PARTICLE PRECESSION RESONANCE  
     324/318 .Spectrometer components
- 4 379/52 (0 OR, 4 XR)  
     Class 379 : TELEPHONIC COMMUNICATIONS  
     379/52 INCLUDING AID FOR HANDICAPPED USER (E.G.,  
             VISUAL, TACTILE, HEARING AID COUPLING)
- 4 381/111 (3 OR, 1 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
             AND DEVICES  
     381/111 CIRCUITRY COMBINED WITH SPECIFIC TYPE  
             MICROPHONE OR LOUDSPEAKER
- 4 381/151 (1 OR, 3 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
             AND DEVICES  
     381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
     381/151 .Body contact wave transfer (e.g., bone  
             conduction earphone, larynx microphone)
- 4 381/190 (1 OR, 3 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
             AND DEVICES  
     381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
     381/190 .Electrostrictive, magnetostrictive, or  
             piezoelectric
- 4 381/340 (2 OR, 2 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
             AND DEVICES  
     381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
     381/337 .Having acoustic wave modifying structure  
     381/339 ..Sound intensifying or spreading element  
     381/340 ...Horn
- 4 381/413 (3 OR, 1 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
             AND DEVICES  
     381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
     381/396 .Electromagnetic (e.g., dydynamic)  
     381/412 ..Magnetic circuit  
     381/413 ...Having damping
- 4 381/421 (0 OR, 4 XR)

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- Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES
- 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER
- 381/396 .Electromagnetic (e.g., dynamic)
- 381/412 ..Magnetic circuit
- 381/420 ...Having central magnetic portion
- 381/421 ....Plural magnets
- 4 381/432 (0 OR, 4 XR)
- Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES
- 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER
- 381/396 .Electromagnetic (e.g., dynamic)
- 381/423 ..Specified diaphragm shape or structure
- 381/432 ...Conical
- 3 84/728 (2 OR, 1 XR)
- Class 084 : MUSIC
- 84/1 INSTRUMENTS
- 84/600 .Electrical musical tone generation
- 84/723 ..Transducers
- 84/725 ...Electromagnetic
- 84/726 ....String
- 84/728 .....Noise reduction (e.g., error prevention)
- 3 181/148 (0 OR, 3 XR)
- Class 181 : ACOUSTICS
- 181/148 DIAPHRAGM AND ENCLOSURE
- 3 181/160 (0 OR, 3 XR)
- Class 181 : ACOUSTICS
- 181/157 DIAPHRAGM
- 181/160 .With resonant chamber
- 3 181/163 (0 OR, 3 XR)
- Class 181 : ACOUSTICS
- 181/157 DIAPHRAGM
- 181/163 .Plural dependent diaphragms
- 3 324/322 (1 OR, 2 XR)
- Class 324 : ELECTRICITY: MEASURING AND TESTING
- 324/300 PARTICLE PRECESSION RESONANCE
- 324/318 .Spectrometer components
- 324/322 ..Electronic circuit elements
- 3 335/231 (0 OR, 3 XR)
- Class 335 : ELECTRICITY: MAGNETICALLY OPERATED SWITCHES,



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MAGNETS, AND ELECTROMAGNETS

335/209 MAGNETS AND ELECTROMAGNETS  
 335/220 .With magneto-mechanical motive device (e.g.,  
           electromagnet with armature)  
 335/229 ..With permanent magnet  
 335/230 ...Polarized electromagnet  
 335/231 ....Varying alternating current amplitude  
           responsive

3 340/572.5 (3 OR, 0 XR)

Class 340 : COMMUNICATIONS: ELECTRICAL  
 340/500 CONDITION RESPONSIVE INDICATING SYSTEM  
 340/540 .Specific condition  
 340/568.1 ..Article placement or removal (e.g.,  
           anti-theft)  
 340/572.1 ...Detectable device on protected article  
           (e.g., "tag")  
 340/572.5 ....Having tuned resonant circuit

3 340/572.6 (1 OR, 2 XR)

Class 340 : COMMUNICATIONS: ELECTRICAL  
 340/500 CONDITION RESPONSIVE INDICATING SYSTEM  
 340/540 .Specific condition  
 340/568.1 ..Article placement or removal (e.g.,  
           anti-theft)  
 340/572.1 ...Detectable device on protected article  
           (e.g., "tag")  
 340/572.6 ....Having "soft" magnetic element (e.g.,  
           Permalloy)

3 359/224 (0 OR, 3 XR)

Class 359 : OPTICS: SYSTEMS  
 359/196 DEFLECTION USING A MOVING ELEMENT OR MEDIUM  
           (OFFSETTING OR CHANGING AT LEAST A PORTIO

N OF THE BEAM)

359/223 .By moving a reflective element  
 359/224 ..Reflective element moved by deformable  
           support

3 368/250 (2 OR, 1 XR)

Class 368 : HOROLOGY: TIME MEASURING SYSTEMS OR DEVICES  
 368/243 SIGNALLING MEANS  
 368/244 .Time condition responsive (i.e., alarm)  
 368/250 ..Electrical

3 375/259 (3 OR, 0 XR)

Class 375 : PULSE OR DIGITAL COMMUNICATIONS

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375/259 SYSTEMS USING ALTERNATING OR PULSATING CURRENT

- 3 381/150 (0 OR, 3 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER
- 3 381/160 (2 OR, 1 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/337 .Having acoustic wave modifying structure  
381/160 ..Reflecting element
- 3 381/162 (2 OR, 1 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/162 .Detail of mechanical vibration coupling to  
transducer (e.g., tuned vibrating element)
- 3 381/189 (2 OR, 1 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
381/189 .Having protective or sheilding feature
- 3 381/326 (1 OR, 2 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/312 HEARING AIDS, ELECTRICAL  
381/322 .Specified casing or housing  
381/326 ..Non-air-conducted sound delivery
- 3 381/331 (0 OR, 3 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/312 HEARING AIDS, ELECTRICAL  
381/322 .Specified casing or housing  
381/331 ..Inductive pickup
- 3 381/336 (2 OR, 1 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/87 HAVING NON-ELECTRICAL FEATURE (E.G., MOUNTING)  
381/332 .And loudspeaker

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- 381/336 ..Curved or angled housing
- 3 381/338 (0 OR, 3 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/337 .Having acoustic wave modifying structure  
 381/338 ..With tubular waveguide or resonant element
- 3 381/392 (1 OR, 2 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/386 .Mounting or support feature of housed  
 loudspeaker  
 381/392 ..Resilient
- 3 381/397 (2 OR, 1 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/396 .Electromagnetic (e.g., dyynamic)  
 381/397 ..Cooling feature
- 3 381/422 (1 OR, 2 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/396 .Electromagnetic (e.g., dyynamic)  
 381/412 ..Magnetic circuit  
 381/420 ...Having central magnetic portion  
 381/421 ....Plural magnets  
 381/422 .....Like poles adjacent
- 3 381/426 (0 OR, 3 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/396 .Electromagnetic (e.g., dyynamic)  
 381/423 ..Specified diaphragm shape or structure  
 381/426 ...Critically defined material or lamination
- 3 381/427 (1 OR, 2 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/396 .Electromagnetic (e.g., dyynamic)  
 381/423 ..Specified diaphragm shape or structure

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381/426 ...Critically defined material or lamination  
381/427 ....Metal

3 381/86 (1 OR, 2 XR)  
Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES  
381/86 VEHICLE

3 623/10 (1 OR, 2 XR)  
Class 623 : PROSTHESIS  
623/10 EAR OR NOSE PROSTHESIS

3 968/DIG 1 (0 OR, 3 XR)  
Class 968 : HOROLOGY  
968/DIG 1 PAPER COPIES IN NUMERICAL ORDER OF ALL U.S.  
PATENTS IN SUBCLASSES 2-977

2 29/605 (1 OR, 1 XR)  
Class 029 : METAL WORKING  
29/592 METHOD OF MECHANICAL MANUFACTURE  
29/592.1 .Electrical device making  
29/602.1 ..Electromagnet, transformer or inductor  
29/605 ...By winding or coiling

2 73/861.12 (0 OR, 2 XR)  
Class 073 : MEASURING AND TESTING  
73/861 VOLUME OR RATE OF FLOW  
73/861.08 .By measuring electrical or magnetic propertie

s

73/861.11 ..Electromagnetic induction (e.g., Faraday  
type)  
73/861.12 ...With detecting electrodes

2 73/861.17 (2 OR, 0 XR)  
Class 073 : MEASURING AND TESTING  
73/861 VOLUME OR RATE OF FLOW  
73/861.08 .By measuring electrical or magnetic propertie

s

73/861.11 ..Electromagnetic induction (e.g., Faraday  
type)  
73/861.12 ...With detecting electrodes  
73/861.16 ....Including electrically interconnected or  
synchronized input and output circuit  
73/861.17 .....Selective or periodic sampling

2 84/727 (1 OR, 1 XR)

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|        |     |   |                                     |
|--------|-----|---|-------------------------------------|
| Class  | 084 | : | MUSIC                               |
| 84/1   |     |   | INSTRUMENTS                         |
| 84/600 |     |   | .Electrical musical tone generation |
| 84/723 |     |   | ..Transducers                       |
| 84/725 |     |   | ...Electromagnetic                  |
| 84/726 |     |   | ....String                          |
| 84/727 |     |   | .....With adjustable means          |

  

|   |         |     |              |                                |
|---|---------|-----|--------------|--------------------------------|
| 2 | 126/39E |     | (0 OR, 2 XR) |                                |
|   | Class   | 126 | :            | STOVES AND FURNACES            |
|   | 126/99R |     |              | HOT-AIR FURNACES               |
|   | 126/1R  |     |              | .Cooking                       |
|   | 126/55  |     |              | ..Combined base and hot closet |
|   | 126/39R |     |              | ...Gas                         |
|   | 126/39E |     |              | ....Burners and lighters       |

  

|   |         |     |              |                                      |
|---|---------|-----|--------------|--------------------------------------|
| 2 | 181/150 |     | (0 OR, 2 XR) |                                      |
|   | Class   | 181 | :            | ACOUSTICS                            |
|   | 181/148 |     |              | DIAPHRAGM AND ENCLOSURE              |
|   | 181/150 |     |              | .Recessed (e.g., wall-mounted, etc.) |

  

|   |         |     |              |                         |
|---|---------|-----|--------------|-------------------------|
| 2 | 181/156 |     | (0 OR, 2 XR) |                         |
|   | Class   | 181 | :            | ACOUSTICS               |
|   | 181/148 |     |              | DIAPHRAGM AND ENCLOSURE |
|   | 181/156 |     |              | .Reflex baffle          |

  

|   |         |     |              |           |
|---|---------|-----|--------------|-----------|
| 2 | 181/157 |     | (1 OR, 1 XR) |           |
|   | Class   | 181 | :            | ACOUSTICS |
|   | 181/157 |     |              | DIAPHRAGM |

  

|   |         |     |              |                      |
|---|---------|-----|--------------|----------------------|
| 2 | 181/164 |     | (0 OR, 2 XR) |                      |
|   | Class   | 181 | :            | ACOUSTICS            |
|   | 181/157 |     |              | DIAPHRAGM            |
|   | 181/164 |     |              | .Sectional diaphragm |

  

|   |         |     |              |                              |
|---|---------|-----|--------------|------------------------------|
| 2 | 181/165 |     | (0 OR, 2 XR) |                              |
|   | Class   | 181 | :            | ACOUSTICS                    |
|   | 181/157 |     |              | DIAPHRAGM                    |
|   | 181/164 |     |              | .Sectional diaphragm         |
|   | 181/165 |     |              | ..Concentric annular section |

  

|   |         |     |              |   |
|---|---------|-----|--------------|---|
| 2 | 181/169 |     | (0 OR, 2 XR) |   |
|   | Class   | 181 | :            | ACOUSTICS                               |
|   | 181/157 |     |              | DIAPHRAGM                               |
|   | 181/167 |     |              | .Critically defined material or coating |
|   | 181/169 |     |              | ..Fibrous material                      |

  

|   |         |  |              |
|---|---------|--|--------------|
| 2 | 181/174 |  | (0 OR, 2 XR) |
|---|---------|--|--------------|

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|         |     |   |                      |
|---------|-----|---|----------------------|
| Class   | 181 | : | ACOUSTICS            |
| 181/157 |     |   | DIAPHRAGM            |
| 181/173 |     |   | .Particular shape    |
| 181/174 |     |   | ..Variable thickness |

  

|   |            |     |  |
|---|------------|-----|--|
| 2 | 251/129.08 |     | (2 OR, 0 XR)                               |
|   | Class      | 251 | : VALVES AND VALVE ACTUATION               |
|   | 251/129.01 |     | ELECTRICALLY ACTUATED VALVE                |
|   | 251/129.08 |     | .Having means to produce proportional flow |

  

|   |        |     |   |
|---|--------|-----|---|
| 2 | 310/13 |     | (2 OR, 0 XR)                              |
|   | Class  | 310 | : ELECTRICAL GENERATOR OR MOTOR STRUCTURE |
|   | 310/10 |     | DYNAMOELECTRIC                            |
|   | 310/12 |     | .Linear                                   |
|   | 310/13 |     | ..Fixed and movable wound elements        |

  

|   |        |     |   |
|---|--------|-----|---|
| 2 | 310/15 |     | (0 OR, 2 XR)                              |
|   | Class  | 310 | : ELECTRICAL GENERATOR OR MOTOR STRUCTURE |
|   | 310/10 |     | DYNAMOELECTRIC                            |
|   | 310/15 |     | .Reciprocating                            |

  

|   |        |     |   |
|---|--------|-----|---|
| 2 | 310/27 |     | (0 OR, 2 XR)                              |
|   | Class  | 310 | : ELECTRICAL GENERATOR OR MOTOR STRUCTURE |
|   | 310/10 |     | DYNAMOELECTRIC                            |
|   | 310/15 |     | .Reciprocating                            |
|   | 310/27 |     | ..Fixed and movable wound elements        |

  

|   |        |     |   |
|---|--------|-----|---|
| 2 | 310/36 |     | (1 OR, 1 XR)                              |
|   | Class  | 310 | : ELECTRICAL GENERATOR OR MOTOR STRUCTURE |
|   | 310/10 |     | DYNAMOELECTRIC                            |
|   | 310/36 |     | .Oscillating                              |

  

|   |         |     |                                  |
|---|---------|-----|----------------------------------|
| 2 | 336/171 |     | (1 OR, 1 XR)                     |
|   | Class   | 336 | : INDUCTOR DEVICES               |
|   | 336/170 |     | THREE OR MORE WINDINGS           |
|   | 336/171 |     | .Noninductively related windings |

  

|   |           |     |  |
|---|-----------|-----|--|
| 2 | 340/572.1 |     | (1 OR, 1 XR)   |
|   | Class     | 340 | : COMMUNICATIONS: ELECTRICAL                               |
|   | 340/500   |     | CONDITION RESPONSIVE INDICATING SYSTEM                     |
|   | 340/540   |     | .Specific condition  |
|   | 340/568.1 |     | ..Article placement or removal (e.g.,<br>anti-theft)       |
|   | 340/572.1 |     | ...Detectable device on protected article<br>(e.g., "tag") |

  

|   |         |     |                              |
|---|---------|-----|------------------------------|
| 2 | 340/7.6 |     | (0 OR, 2 XR)                 |
|   | Class   | 340 | : COMMUNICATIONS: ELECTRICAL |

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|                   |  |
|-------------------|--|
| 340/825           | SELECTIVE  |
| 340/825.36        | .Having indication or alarm (e.g., location indication)                                  |
| 340/7.2           | ..Code responsive (i.e., paging)   |
| 340/7.58          | ...Alert   |
| 340/7.6           | ....Vibratory (i.e., tactual) alarm  |
|                   |  |
| 2 348/836         | (1 OR, 1 XR)   |
| Class 348         | : TELEVISION   |
| 348/739           | VIDEO DISPLAY  |
| 348/836           | .Cabinet or chassis  |
|                   |  |
| 2 359/214         | (2 OR, 0 XR)   |
| Class 359         | : OPTICS: SYSTEMS  |
| 359/196           | DEFLECTION USING A MOVING ELEMENT OR MEDIUM (OFFSETTING OR CHANGING AT LEAST A PORT      |
| ION OF THE BEAM)  |  |
| 359/197           | .Using a periodically moving element (periodic change of optically reflecting, refracti  |
| ng or diffracting | element)   |
| 359/212           | ..Including reflective type moving element   |
| 359/213           | ...Having oscillating element  |
| 359/214           | ....Single plane mirror element  |
|                   |  |
| 2 359/221         | (0 OR, 2 XR)   |
| Class 359         | : OPTICS: SYSTEMS  |
| 359/196           | DEFLECTION USING A MOVING ELEMENT OR MEDIUM (OFFSETTING OR CHANGING AT LEAST A PORTI     |
| ON OF THE BEAM)   |  |
| 359/197           | .Using a periodically moving element (periodic change of optically reflecting, refractin |
| g or diffracting  | element)   |
| 359/212           | ..Including reflective type moving element   |
| 359/221           | ...Having planar rotating reflector with rotation axis in its plane                      |
|                   |  |
| 2 367/140         | (1 OR, 1 XR)   |
| Class 367         | : COMMUNICATIONS, ELECTRICAL: ACOUSTIC WAVE  |
| 367/140           | SYSTEMS AND DEVICES  |
| 367/140           | SIGNAL TRANSDUCERS   |
|                   |  |
| 2 379/443         | (2 OR, 0 XR)   |
| Class 379         | : TELEPHONIC COMMUNICATIONS  |
| 379/441           | TERMINAL ACCESSORY OR AUXILIARY EQUIPMENT  |
| 379/443           | .Including coupler (e.g., inductive)   |

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- 2 381/184 (1 OR, 1 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                     AND DEVICES  
     381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
     381/182 .Plural or compound reproducers  
     381/184 ..Different types of diaphragms
- 2 381/185 (0 OR, 2 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                     AND DEVICES  
     381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
     381/182 .Plural or compound reproducers  
     381/185 ..Having common voice coil
- 2 381/300 (0 OR, 2 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                     AND DEVICES  
     381/1 BINAURAL AND STEREOPHONIC  
     381/300 .Stereo speaker arrangement
- 2 381/322 (0 OR, 2 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                     AND DEVICES  
     381/312 HEARING AIDS, ELECTRICAL  
     381/322 .Specified casing or housing
- 2 381/328 (0 OR, 2 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                     AND DEVICES  
     381/312 HEARING AIDS, ELECTRICAL  
     381/322 .Specified casing or housing  
     381/328 ..Ear insert
- 2 381/339 (0 OR, 2 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                     AND DEVICES  
     381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
     381/337 .Having acoustic wave modifying structure  
     381/339 ..Sound intensifying or spreading element
- 2 381/342 (0 OR, 2 XR)  
     Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                     AND DEVICES  
     381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
     381/337 .Having acoustic wave modifying structure  
     381/339 ..Sound intensifying or spreading element  
     381/340 ...Horn  
     381/342 ....Plural horns or diaphragms



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- 2 381/343 (2 OR, 0 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/337 .Having acoustic wave modifying structure  
 381/339 ..Sound intensifying or spreading element  
 381/340 ...Horn  
 381/343 ....Phase plug
- 2 381/349 (0 OR, 2 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/337 .Having acoustic wave modifying structure  
 381/345 ..Acoustic enclosure  
 381/349 ...Bass reflex (e.g., rear wave)
- 2 381/354 (1 OR, 1 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/337 .Having acoustic wave modifying structure  
 381/354 ..Absorbing or attenuating element
- 2 381/371 (1 OR, 1 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/182 .Plural or compound reproducers  
 381/370 ..Headphone  
 381/371 ...Particular cup
- 2 381/395 (2 OR, 0 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/386 .Mounting or support feature of housed  
 loudspeaker  
 381/395 ..Mechanical detail
- 2 381/404 (1 OR, 1 XR)  
 Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
 AND DEVICES  
 381/150 ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
 381/396 .Electromagnetic (e.g., dynamic)  
 381/400 ..Movable voice coil  
 381/403 ...Centering from outside bobbin or diaphragm

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- 381/404           ....Spider
- 2   381/411           (1 OR, 1 XR)  
       Class   381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                   AND DEVICES  
       381/150         ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
       381/396         .Electromagnetic (e.g., dyynamic)  
       381/411         ..Including adjustment mechanism
- 2   381/415           (1 OR, 1 XR)  
       Class   381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                   AND DEVICES  
       381/150         ELECTRO-ACOUSTIC AUDIO TRANSDUCER  
       381/396         .Electromagnetic (e.g., dyynamic)  
       381/412         ..Magnetic circuit  
       381/415         ...Magnetic liquid
- 2   381/59            (1 OR, 1 XR)  
       Class   381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                   AND DEVICES  
       381/58         MONITORING/MEASURING OF AUDIO DEVICES  
       381/59         .Loudspeaker operation
- 2   381/77            (2 OR, 0 XR)  
       Class   381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                   AND DEVICES  
       381/77         ONE-WAY AUDIO SIGNAL PROGRAM DISTRIBUTION
- 2   381/89            (1 OR, 1 XR)  
       Class   381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                   AND DEVICES  
       381/87         HAVING NON-ELECTRICAL FEATURE (E.G., MOUNTING)  
       381/89         .Loudspeakers driven in given phase  
                       relationship
- 2   381/91            (0 OR, 2 XR)  
       Class   381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                   AND DEVICES  
       381/87         HAVING NON-ELECTRICAL FEATURE (E.G., MOUNTING)  
       381/91         .Having microphone
- 2   381/94.1          (0 OR, 2 XR)  
       Class   381 :   ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
                   AND DEVICES  
       381/94.1        NOISE OR DISTORTION SUPPRESSION

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- 2 381/94.9 (2 OR, 0 XR)
    - Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES
    - 381/94.1 NOISE OR DISTORTION SUPPRESSION
    - 381/94.9 .Feedforward circuitry for transducer  
compensation
  
  - 2 381/99 (0 OR, 2 XR)
    - Class 381 : ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS  
AND DEVICES
    - 381/98 INCLUDING FREQUENCY CONTROL
    - 381/99 .Having crossover filter
  
  - 2 601/47 (0 OR, 2 XR)
    - Class 601 : SURGERY: KINESITHERAPY
    - 601/1 KINESITHERAPY
    - 601/46 .Vibrator
    - 601/47 ..Audio
  
  - 2 601/57 (0 OR, 2 XR)
    - Class 601 : SURGERY: KINESITHERAPY
    - 601/1 KINESITHERAPY
    - 601/46 .Vibrator
    - 601/49 ..Couch, chair, or body support
    - 601/56 ...Vibrant cushion
    - 601/57 ....Having vibrator contained therein
  
  - 2 968/969 (0 OR, 2 XR)
    - Class 968 : HOROLOGY
    - 968/968 PRODUCING ACOUSTIC TIME SIGNALS [G04G 13/00]
    - 968/969 .At preselected times, e.g., alarm clocks, etc
- [G04G 13/02]